

## **Project Descriptions for June 5, 2019**

### **Board of Trustees Meeting**

#### **Drinking Water Commitments**

##### **Brockton DW-18-11**

Cleanings and inspections of the finished water pump well have been conducted at the Silver Lake Water Treatment Plant. Several deficiencies have been discovered such as the ceiling losing as much as 3 inches of concrete in areas where reinforcement has been exposed among several other findings. The findings from these evaluations indicate a critical need to repair the backwash/finished water pump well ceiling, and replace the CMU baffle wall in the clearwell to protect the treatment facility's finished water quality and to maintain proper operating conditions for the equipment in the pump room.

##### **Gloucester DW-18-03**

The Babson Water Treatment Plant (WTP) Emergency Project is designed to address issues that are currently causing unacceptable Water Treatment Plant (WTP) shutdowns. These include problems with the generator transfer switch, the actuated WTP intake valve and meter vaults, and with eels clogging the pumps and sedimentation basin blow down valves. The scope of work encompasses installation of a new generator Automatic Transfer Switch, of a new accessible vault containing a new battery backed-up intake valve and inflow meter, and a new Eel Control Vault with accessible screens and instrumentation. Ancillary work considered appropriate to complete in this project includes new meters and vaults for the Goose Cove-Babson Reservoir Connector and for the Babson Waste Line, rehabilitation of the Low Lift pumps presumed damaged from eels, and provision of a spare Low Lift pump.

##### **Spencer DW-18-13**

The project consists of 7,275 linear feet of 12" diameter main be installed from the Moose Hill Tank to Greenville Street, along Greenville Street to Main Street, along Main Street, and along Cherry Street. This project eliminates the dead end on Greenville Street, replaces a main with a higher risk of failure based on its asset management scoring, eliminates a hydraulic deficiency along Greenville Street and at the intersection of Main Street and North Street, and allows the Town to take the 14" diameter main, which is also an identified critical component in need of replacement, off-line for rehabilitation, repairs or replacement while continuing to provide fire protection to the service area.

## **Clean Water Agreements**

### **Brockton CWP-18-42**

This biological nutrient removal (BNR) project is necessary to enable the Brockton Advanced Water Reclamation Facility (AWRF) to comply with its NPDES permit requirement to achieve effluent total nitrogen (TN) of 450 lbs/day seasonally, equivalent to 3 mg/L on an 18-MGD average flow basis. The improvements anticipated are based on the demonstrated results and findings of a full-scale pilot process train that has been operational for almost two full nitrogen-removal seasons. This project will involve upgrading the AWRF's other six aeration basins to the Bardenpho configuration and making other AWRF improvements as necessary to support the process upgrade.

### **Goshen CWP-18-11**

This contract is for repairing erosion and slope failure-damaged areas of the landfill cap and installing drainage improvements including survey services before, during, and after the construction. It also includes unsuitable material removal and replacement, geosynthetic installation, drainage layer replacement, drainage pipe installation, and toe drain replacement (Alternate 1), drainage berm/swale replacement, and downslope swale installation. Vegetative layer placement, hydroseeding, and erosion control measures are also required.

### **Revere CWP-18-27**

The continuation of the implementation through construction contracts of the Illicit Connection and Sump Pump Removal Program is essential for the City of Revere to meet their goals and comply with the Consent Decree. There are a significant amount of illicit sump pump, roof drain, roof leader, driveway drain, yard drain, etc. connections from private homes and businesses that must be removed from the sewer in order to remove inflow and increase the wastewater capacity of the City's sewer system. These contracts become the mechanism to remove the illicit inflow.

### **Tyngsborough CW-18-17**

The Phase 2 Middlesex Road North Project is located on the northern portion of Route 3A (Middlesex Road) in Tyngsborough, Massachusetts. There are multiple public groundwater supplies directly abutting the Phase 2 Sewer Project. The TJMaxx WWTF is located on the northern most section of Middlesex Road within the Phase 2 project area and has a groundwater discharge which is a potential threat to the environmental resources in the area. By adding public sewer to the Phase 2 area, the TJMaxx WWTF could come offline and the plaza would connect into the sewer which would eliminate the potential harmful groundwater discharge. There are multiple issues with septic systems due to a large number of commercial parcels located here.

## **Drinking Water Agreements**

### **Brockton DWP-18-11**

Cleanings and inspections of the finished water pump well have been conducted at the Silver Lake Water Treatment Plant. Several deficiencies have been discovered such as the ceiling losing as much as 3 inches of concrete in areas where reinforcement has been exposed among several other findings. The findings from these evaluations indicate a critical need to repair the backwash/finished water pump well ceiling, and replace the CMU baffle wall in the clearwell to protect the treatment facility's finished water quality and to maintain proper operating conditions for the equipment in the pump room.

### **Dartmouth DWP-18-05**

The project will include Contract-1: construction of in-tank aeration systems in both Allen Street water storage tanks, and includes Contract-2: the modification of all three, of the Town's existing WTPs by changing the secondary disinfection from free chlorine to chloramines. The Town entered into an Administrative Consent Order with DEP to reduce TTHM levels in the distribution system. The completed project will improve drinking water quality by reducing TTHM concentration, which will also avoid potential future Stage 2 DBPR LRAA TTHM violations.

### **Gloucester DWP-18-03**

The Babson Water Treatment Plant (WTP) Emergency Project is designed to address issues that are currently causing unacceptable Water Treatment Plant (WTP) shutdowns. These include problems with the generator transfer switch, the actuated WTP intake valve and meter vaults, and with eels clogging the pumps and sedimentation basin blow down valves. The scope of work encompasses installation of a new generator Automatic Transfer Switch, of a new accessible vault containing a new battery backed-up intake valve and inflow meter, and a new Eel Control Vault with accessible screens and instrumentation. Ancillary work considered appropriate to complete in this project includes new meters and vaults for the Goose Cove-Babson Reservoir Connector and for the Babson Waste Line, rehabilitation of the Low Lift pumps presumed damaged from eels, and provision of a spare Low Lift pump.

### **Spencer DWP-18-13**

The project consists of 7,275 linear feet of 12" diameter main be installed from the Moose Hill Tank to Greenville Street, along Greenville Street to Main Street, along Main Street, and along Cherry Street. This project eliminates the dead end on Greenville Street, replaces a main with a higher risk of failure based on its asset management scoring, eliminates a hydraulic deficiency along Greenville Street and at the intersection of Main Street and North Street, and allows the Town to take the 14" diameter main, which is also an identified critical component in need of replacement, off-line for rehabilitation, repairs or replacement while continuing to provide fire protection to the service area.